

L25 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2004 ACS on STN

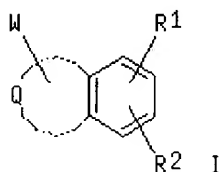
Full Text	Citing References
--------------	----------------------

ACCESSION NUMBER: 2003:1006950 HCAPLUS  
 DOCUMENT NUMBER: 140:59659  
 TITLE: Preparation of indole, indazole, and benzazole derivatives as  $\beta$ 3-adrenergic receptor agonists  
 INVENTOR(S): Ueno, Yoshihide; Noguchi, Tsuyoshi; Hirota, Kotaro; Sawada, Nobuyuki; Umezome, Takashi  
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 183 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106418	A1	20031224	WO 2003-JP7382	20030610
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: JP 2002-171400 A 20020612  
 JP 2003-27529 A 20030204

OTHER SOURCE(S): MARPAT 140:59659  
 GI



AB The title compds. (I) [wherein W = ArCH(OH)CR<sub>4</sub>R<sub>5</sub>NHCR<sub>6</sub>R<sub>7</sub>CH<sub>2</sub> bonded to a possible position on Q; Q in cooperation with W = -C(W):C(R<sub>3</sub>A)N(R<sub>3</sub>)-, -C(R<sub>3</sub>A):C(W)N(R<sub>3</sub>)-, -C(R<sub>3</sub>A):C(R<sub>3</sub>B)N(W)-, C(W):N-N(R<sub>3</sub>)-, C(R<sub>3</sub>A):N-N(W)-, -N:C(W)-N(R<sub>3</sub>)-, -N:C(R<sub>3</sub>A)-N(W)-, -C(W):N-O-, -C(W):N-S-; R<sub>3</sub>A, R<sub>3</sub>B, R<sub>4</sub>-R<sub>7</sub> = H, (un)substituted lower alkyl; R<sub>1</sub> = (un)substituted lower alkyl, -X-R<sub>1</sub>e-CONR<sub>1</sub>aR<sub>1</sub>b, -X-R<sub>1</sub>e-CO<sub>2</sub>R<sub>1</sub>a, -X-R<sub>1</sub>d; wherein X = a single bond, O, S, N(R<sub>1</sub>c), N(R<sub>1</sub>c)CO, CON(R<sub>1</sub>c), N(R<sub>1</sub>c)SO<sub>2</sub>, SO<sub>2</sub>N(R<sub>1</sub>c), CONHSO<sub>2</sub>; R<sub>1</sub>e = a single bond, (un)substituted lower alkylene; R<sub>1</sub>a, R<sub>1</sub>b, R<sub>1</sub>c = H, each (un)substituted lower alkyl, aralkyl, aryl, cycloalkyl, or heterocyclyl; or NR<sub>1</sub>aR<sub>1</sub>b = (un)substituted 3- to 8-membered satd. cyclic amino optionally contg. O or NH in the ring; R<sub>1</sub>d = H, (un)substituted lower alkyl, Ph, cycloalkyl optionally having one or plural no. of CH<sub>2</sub> groups replaced with O or (un)substituted NH; R<sub>2</sub> = H, halo, (un)substituted lower alkyl, lower alkenyl, or NH<sub>2</sub>, OH, lower alkoxy; or R<sub>1</sub> and R<sub>2</sub> together represents methylenedioxy optionally substituted with CO<sub>2</sub>H or alkoxy carbonyl; R<sub>3</sub> = H, (un)substituted lower alkyl; R<sub>1</sub> and R<sub>3</sub> together

represents -X-R1e-CO-; Ar = (un)substituted Ph or pyridyl etc.] or pharmaceutically acceptable salts of the compds. are prepd. The compds. I or salts thereof have a stimulating activity on a  $\beta_3$ -adrenergic receptor. They are useful as therapeutic agents for obesity, hyperglycemia, increased urinary frequency (pollakiuria), depression, and gallstone. For example, [3-[(2R)-2-[(2R)-2-hydroxy-2-pyridin-3-ylethylamino]propyl]-1H-indol-7-yloxy]acetic acid bistrifluoroacetate in vitro showed the selective activity for stimulating human  $\beta_3$  receptor in SK-N-MC cells which was measured based on producing cAMP with intrinsic activity of 48 nM whereas the activity for stimulating human  $\beta_1$  and  $\beta_2$ -receptor in THP-1 cells was obsd. at  $\geq 10$   $\mu$ M.

IT **639082-48-7P**

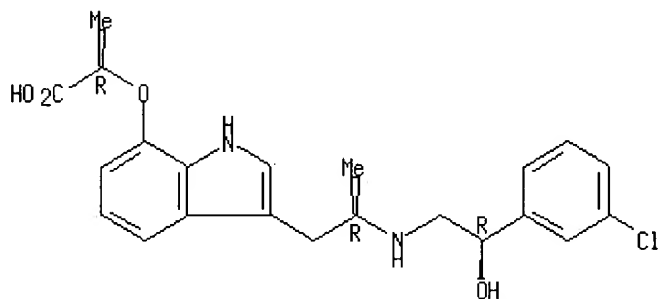
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); **THU** (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of indole, indazole, and benzazole derivs. as  $\beta_3$ -adrenergic receptor agonists for treatment of obesity, hyperglycemia, increased urinary frequency (pollakiuria), depression, and gallstone)

RN **639082-48-7** HCAPLUS

CN Propanoic acid, 2-[[3-[(2R)-2-[[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-1H-indol-7-yl]oxy]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

106

THERE ARE 106 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT